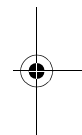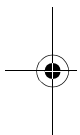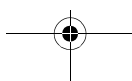Cat. No. 14-516

OWNER'S MANUAL

Please read before using this equipment.

CD-3640

Portable CD Player

with AM/FM Auto Stop
Stereo Cassette

OPTIMUS®

WARNING: To reduce the risk of fire or shock hazard, do not expose this product to rain or moisture.

| ⚡ | **CAUTION**
RISK OF ELECTRIC SHOCK. DO NOT OPEN. | ! |

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER OR BACK. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL.

This symbol is intended to alert you to the presence of uninsulated dangerous voltage within the product's enclosure that might be of sufficient magnitude to constitute a risk of electric shock. Do not open the product's case.

This symbol is intended to inform you that important operating and maintenance instructions are included in the literature accompanying this product.

The graphical symbols with supplemental markings are located on the bottom of the product.

FEATURES

Your Optimus CD-3640 Portable CD Player is an all-in-one music system with a stereo AM/FM radio, a cassette recorder, and a CD player. It is small and portable so you can take it anywhere, indoors or out. Anywhere you go, at work or play, you can listen to the radio, cassette tapes, or compact discs.

Your player includes these features:

Motorized CD Drawer — the CD drawer opens automatically when you press a button.

8 x Oversampling — improves the CD's sound by multiplying the standard 44.1 kHz sample rate by eight.

32-Track Programmable — the CD player lets you program and play up to 32 tracks.

Repeat Function — automatically repeats the current track or all tracks.

Display — lets you easily see the CD player's settings.

AM/FM Stereo Tuner — lets you tune your favorite stations.

High/Low Tone Control — lets you easily adjust the treble and bass sounds, so you can tailor the sound to suit your preferences.

Automatic Stop — protects the tape and tape-handling parts by automatically stopping the tape when it reaches the end.

Dual 4-Inch Speakers — provide clear, crisp sound.

3

Headphone Jack — lets you connect a pair of headphones or earphones for private listening.

Note: Most material on compact discs and prerecorded tapes is copyrighted. Unauthorized duplication of copyrighted material is a violation of the copyright laws of most countries and such duplication may result in fines and/or imprisonment. Note, however, that in the United States, it is not a violation of U.S. copyright laws for a consumer to use an audio recording device to duplicate musical recordings for noncommercial (personal) use.

CDs that can be played on this CD player have this mark on them:

The CD player's advanced technology makes it simple to operate. But, be sure you read this Owner's Manual completely so you can take advantage of all its advanced features.

This CD player is made and tested to meet exacting safety standards. It meets FCC requirements and complies with safety performance standards of the U.S. Department of Health and Human Services.

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Warnings:

- This CD player employs a laser light beam. Only a qualified service person should remove the cover or attempt to service this device, due to possible eye injury.

- The use of controls, adjustments, or procedures other than those specified herein might result in hazardous radiation exposure.

THE FCC WANTS YOU TO KNOW

This equipment complies with the limits for a Class B digital device as specified in Part 15 of *FCC Rules*. These limits provide reasonable protection against radio and TV interference in a residential area. However, your equipment might cause TV or radio interference even when it is operating properly. To eliminate interference, you can try one or more of the following corrective measures:

- reorient or relocate the receiving antenna

- increase the distance between the equipment and the radio or TV

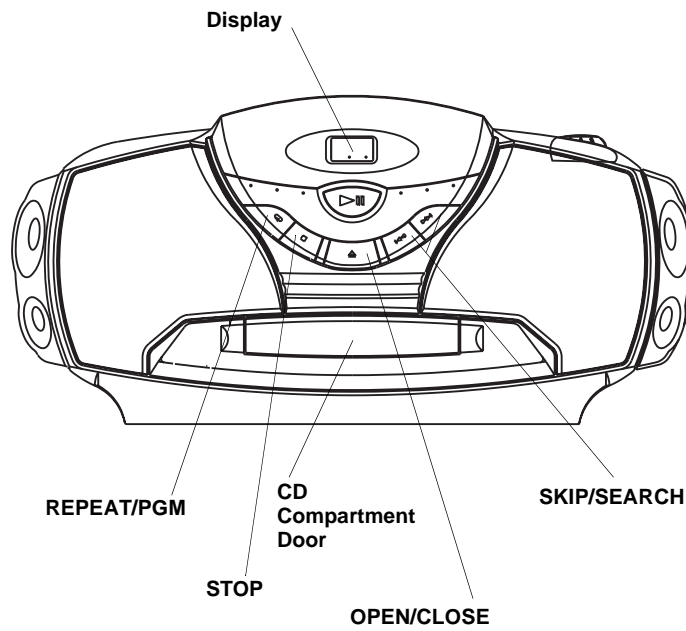- use outlets on different electrical circuits for the equipment and the radio or TV

Consult your local RadioShack store if the problem still exists.

You must use shielded interface cables with this equipment.

CONTENTS

A QUICK LOOK AT YOUR CD-3640

Display

REPEAT/PGM

**CD
Compartment
Door**

SKIP/SEARCH

STOP

OPEN/CLOSE

7

PREPARATION

CONNECTING POWER

You can power your CD-3640 from either:

- standard AC power (with the supplied power cord)

- eight C batteries (not supplied)

Note: Connecting the power cord disconnects internal batteries.

Using AC Power

To use AC power, plug the supplied power cord into the **AC ~** jack on the back of the CD-3640. Then plug the other end into a standard AC outlet.
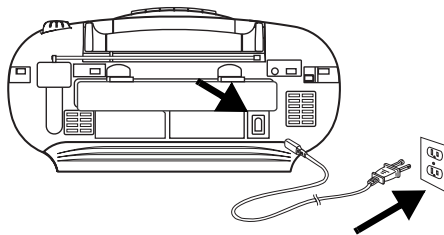
Cautions:

- The plug's blades are polarized (one blade is wider than the other) and fit only one way. If the plug does not fit easily, turn it over and try again. Do not force it.

8

- Always unplug the power cord from the AC outlet before you unplug it from the CD-3640.

Using Batteries

Your player can use eight C batteries (not supplied) for power. For the best performance and longest life, we recommend RadioShack alkaline batteries.

Cautions:

- Use only fresh batteries of the required size and recommended type.

- Do not mix old and new batteries, different types of batteries (standard, alkaline, or rechargeable), or rechargeable batteries of different capacities.

Hint: For the easiest battery installation, turn the CD-3640 face down on a flat surface.

Follow these steps to install batteries.

1. Press down on the two tabs above the battery compartment cover, then pull out the cover to remove it.

9
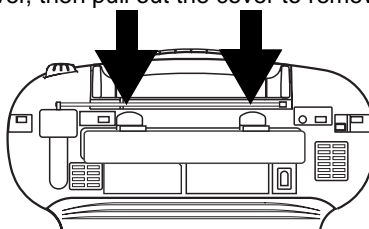
2. Place the batteries in the com-
   partment and on top of the
   attached ribbon, as indicated by
   the polarity symbols (+ and –)
   marked on the back of the CD-
   3640.

3. Replace the cover.

When the CD-3640's sound weakens or distorts, or the CD-3640
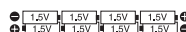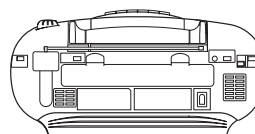stops operating properly, replace the batteries.

Warning: Dispose of old batteries promptly and properly. Do not
burn or bury them.

Caution: If you do not plan to use the CD-3640 with batteries for
a month or more, or if you plan to use only AC power, remove
the batteries. Batteries can leak chemicals that can destroy elec-
tronic parts.

USING HEADPHONES

For listening privately, you can connect a pair of stereo head-
phones (not supplied) with a $1/8$-inch (3.5-mm) plug to the
PHONES jack. Your local RadioShack store carries a wide selec-
tion of stereo headphones.

Note: Connecting headphones automatically disconnects the
built-in speaker.

Listening Safely

To protect your hearing, follow these guidelines when you use headphones.

- Set the volume to the lowest setting before you begin listening. After you begin listening, adjust the volume to a comfortable level.

- Do not listen at extremely high volume levels. Extended high-volume listening can lead to permanent hearing loss.

- Once you set the volume, do not increase it. Over time, your ears adapt to the volume level, so a volume level that does not cause discomfort might still damage your hearing.

RADIO OPERATION

1. Set **CD/RADIO/TAPE** on the side of the CD-3640 to **RADIO**.

2. Set **AM/FM** to the desired band.

3. Set **FM MONO/FM STEREO** to **FM STEREO** for FM stereo sound or to **FM MONO** for monaural sound.

4. Rotate **TUNING** on top of the CD-3640 to the desired station.

   Notes:

   • For the best FM reception, swivel the telescoping antenna to the position that produces the best reception.

   • For the best AM reception, rotate the CD-3640 to position the built-in AM antenna.

   • If FM stereo reception is weak while **FM MONO/FM STEREO** is set to **FM STEREO**, set it to **FM MONO**. The sound is no longer in stereo, but the reception should improve.

5. Adjust **VOL** on the back of the CD-3640 to a comfortable level.

6. Slide **TONE** toward **HIGH** to emphasize treble sounds or toward **LOW** to emphasize bass sounds.

7. To turn off the radio, set **CD/RADIO/TAPE** to **TAPE** or **CD**.

CD PLAYER OPERATION

LOADING A CD

1. Set **CD/RADIO/TAPE** to **CD**. − − appears.

2. Press **OPEN/CLOSE** to open the CD compartment door.

3. Place a CD in the compartment with the label-side facing up.
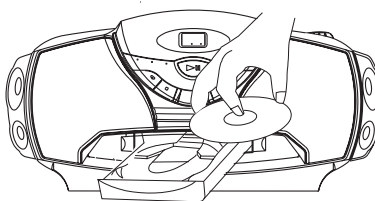
4. Press **OPEN/CLOSE** again to close the CD compartment door. The total number of tracks appears on the display.

To remove the CD, press **OPEN/CLOSE** and grasp the CD by its edges, then carefully pull it out.

PLAYING A CD

1. Press ►❚❚ to play all the tracks in order, starting with Track 1. The current track number appears on the display.

    Note: To temporarily stop the CD, press ►❚❚. The current track number flashes on the display. Press ►❚❚ again to resume playing the CD.

2. Adjust **VOL** to a comfortable level.

3. Adjust **TONE** toward **HIGH** to emphasize the treble sounds or toward **LOW** to emphasize the bass sounds.

4. The CD stops after playing the last track. To stop play sooner, press **STOP** ■ . Wait a few seconds for the CD to stop turning, then press **OPEN/CLOSE** ⏏ to open the CD compartment door and remove the CD.

AUTOMATIC SEARCH MUSIC SYSTEM

The automatic search music system lets you quickly locate the beginning of any track on the CD, including the track currently playing.

If the CD is playing:

*   Press **SKIP/SEARCH** ❙◄◄ to return to the beginning of the current track.

*   Press **SKIP/SEARCH** ❙◄◄ again to skip to the beginning of the previous track.

*   Press **SKIP/SEARCH** ►►❙ to skip to the beginning of the next track.

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If the CD is stopped, repeatedly press (or hold down) **SKIP/
SEARCH** ◄◄ or ►► until the number of the track you want to
play appears, then press ► ▌▌. The CD player starts playing the
selected track.

To search backward or forward within a track while the CD is
playing, hold down **SKIP/SEARCH** ◄◄ or ►►. You hear the
track play rapidly and at a lower volume. Release the button to
resume normal play.

REPEAT

You can repeatedly play one track or all tracks on a CD.

To repeat a single track on a CD during play, press **REPEAT/
PGM** ↻. A red dot lights on the display. Or, to repeat all
tracks on the CD, press **REPEAT/PGM** ↻ again. The red dot
flashes on the display.

To cancel repeat play, press **REPEAT/PGM** ↻ again. The red
dot disappears.

PROGRAMMED PLAY

You can program up to 32 tracks on a CD to play in any se-
quence.

1. Load a CD into the CD compartment.

2. Press **REPEAT/PGM** ↻. A red dot flashes on the display.

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3. Repeatedly press (or hold down) **SKIP/SEARCH** ⏮ or **SKIP/SEARCH** ⏭ until the number of the track you want to program appears.

4. Press **REPEAT/PGM** ⟲ to store the track.

5. Repeat Steps 3 and 4 for each track you want to store.

   Note: If you try to store more than 32 tracks, PC appears.

6. Press ►❙❙ to play the tracks in the sequence you programmed. The current track number appears on the display.

Notes:

• Press **STOP** ■ to stop playing the sequence.

• Use **SKIP/SEARCH** ⏮ or ⏭ to move through the programmed sequence during play.

To clear the program memory, do one of the following:

• press **STOP** ■ twice

• press **OPEN/CLOSE** to open the CD door

• slide **CD/RADIO/TAPE** to **RADIO** or **TAPE**

• unplug the CD-3640 or remove the batteries from it

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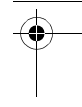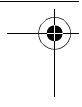
CD CARE TIPS

Even though a compact disc is durable, treat the CD surface with care.

- Do not write on either side of the CD, particularly the non-label side (signals are read from the non-label side).

- Do not store CDs in high temperature, high-humidity locations. They might warp.

- Keep CDs dry. A water drop can act as a lens and affect the laser beam's focus.

- Always handle a CD by the edges to avoid fingerprints and always keep it in its protective case or sleeve when it is not in use. Fingerprints and scratches on the CD's surface can prevent the laser beam from correctly reading the digital information. If the CD gets scratched, use RadioShack Scratch 'n Fix to repair the disc.
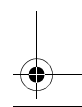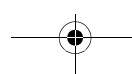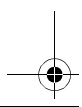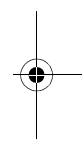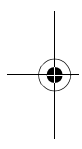
PLAYING A CASSETTE TAPE

1. Set **CD/RADIO/TAPE** to **TAPE**.

2. Press **STOP/EJECT** to open the cassette compartment door.

3. Take up any slack in the cassette
   tape by turning its hub with your fin-
   ger or a pencil. Otherwise, the tape
   might become tangled in the play
   mechanism. Avoid touching the
   tape.
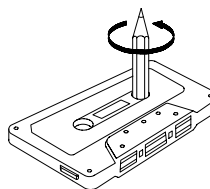
4. Load the cassette into the compartment with the open edge
   facing you, the side you want to play facing up, and the full
   reel on the left.

5. Close the cassette compartment door.

6. Press **PLAY**. The cassette tape begins to play.

   Notes:

   • To temporarily stop play, press **PAUSE**. Press **PAUSE**
     again to resume play.

   • To stop play and rapidly wind the tape forward or back-
     ward, press **FAST.F** or **REWIND**. The cassette deck auto-
     matically stops at the end of the tape.

7. Adjust **VOL** to a comfortable level.

8. Adjust **TONE** toward **HIGH** to increase treble sounds or
   toward **LOW** to increase bass sounds.

9. The cassette plays until it reaches the end of the side, then
   it automatically stops. To stop play sooner, press **STOP/
   EJECT**. Press **STOP/EJECT** again to open the cassette com-
   partment door.

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RECORDING

You can record onto a cassette tape from the CD player or the radio.

Notes:

- The CD-3640's Automatic Level Control (ALC) automatically adjusts the recording level. **VOL** has no effect on the recording.

- Tape quality greatly affects the quality of the recording. We recommend regular length (60- or 90-minute) cassette tapes. We do not recommend long-play cassette tapes, such as C-120s, because they are thin and can easily tangle. For low-noise, wide-range recordings, use normal-bias tape.

- Before recording, be sure the erase-protection tabs are in place on the cassette tape you are using to record. See "Preventing Accidental Erasure" on Page 22.

Caution: If you load a cassette tape that has had its erase protection tabs removed, you cannot press **RECORD**. Do not force it, as this can damage the mechanism.

RECORDING FROM THE CD PLAYER

1. Set **CD/RADIO/TAPE** to **CD**.

2. Load a blank cassette tape, or one you want to record over, into the cassette compartment.

3. Load a CD into the CD compartment.

4. Press ►❚❚ to play the CD.

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5. Press **RECORD** on the cassette tape deck. **RECORD** and **PLAY** lock down. The cassette deck starts recording and the CD starts to play the first track.

To begin recording on another track besides the first, after you press **RECORD**, repeatedly press **SKIP/SEARCH** ▶▶▌ on the CD player until that track number appears. The cassette deck starts recording that track as the CD plays.

Notes:

• To temporarily pause the recording, press **PAUSE** on the cassette deck. Press **PAUSE** again to resume recording.

• To pause the CD player, press ▶ ❚❚. Press ▶ ❚❚ again to resume playing the CD.

6. To stop recording before the tape reaches the end, press **STOP/EJECT** on the cassette deck.

7. To stop the CD player before it automatically stops, press **STOP** ■ on the CD player.

RECORDING FROM THE RADIO

1. Follow Steps 1–4 under "Radio Operation" on Page 12.

2. Insert a blank cassette tape, or one you want to record over, into the cassette compartment.

3. Press **RECORD** on the cassette deck. **RECORD** and **PLAY** lock down. The cassette deck starts recording from the radio.

Note: To temporarily pause the recording, press **PAUSE** on the cassette deck. Press **PAUSE** again to resume recording.

4. To stop recording before the tape reaches the end, press **STOP/EJECT** on the cassette deck.

TAPE TIPS

Restoring Tape Tension and Sound Quality

After you play a cassette tape several times, the tape might become tightly wound on the reels. This can cause playback sound quality to deteriorate.

To restore the sound quality, fast-forward the tape from the beginning to the end of one side, then completely rewind it. Then loosen the tape reels by gently tapping each edge of the cassette on a flat surface.

Caution: Be careful not to damage the cassette when tapping it. Do not touch the exposed tape or allow any sharp objects near the cassette.

Erasing Tapes

To record over a cassette tape, simply record as usual. The cassette deck records over the previous recording. To erase the entire cassette tape, set **CD/RADIO/TAPE** to **CD** and do not load a CD. Then start recording and let the tape record to the end. Or, set **CD/RADIO/TAPE** to **TAPE** and press **RECORD**.

You can quickly erase both sides of a cassette tape using a RadioShack bulk tape eraser.

Note: If you use metal or high-bias type tape, the recorded sound might not be erased properly.

Preventing Accidental Erasure

Cassette tapes have two erase-protection tabs — one for each side. When a tab is in place, you can record on that side.

To prevent accidental erasure of a tape recording, use a screwdriver to remove one or both of the cassette tape's erase-protection tabs. This prevents **RECORD** from being pressed.

If you later decide to record on a tape side after you have removed the erase-protection tab, place a piece of strong plastic tape over that side's erase-protection hole. Be sure you cover only the hole originally covered by the erase-protection tab.

Caution: Removing the erase-protection tabs does not prevent a bulk eraser from erasing a cassette tape.

CARE AND MAINTENANCE

Your Optimus CD-3640 Portable CD Player is an example of superior design and craftsmanship. The following suggestions will help you care for your player so you can enjoy it for years.

Keep the CD-3640 dry. If it gets wet, wipe it dry immediately. Liquids might contain minerals that can corrode the electronic circuits.

Use and store the CD-3640 only in normal temperature environments. Temperature extremes can shorten the life of electronic devices, damage batteries, and distort or melt plastic parts.

Keep the CD-3640 away from dust and dirt, which can cause premature wear of parts.

Handle the CD-3640 gently and carefully. Dropping it can damage circuit boards and cases and can cause the CD-3640 to work improperly.

Use only fresh batteries of the required size and recommended type. Batteries can leak chemicals that damage your CD-3640's electronic parts.

Wipe the CD-3640 with a damp cloth occasionally to keep it looking new. Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the CD-3640.

Modifying or tampering with the CD-3640's internal compo-
nents can cause a malfunction and might invalidate its warran-
ty. If your CD-3640 is not performing as it should, take it to your
local RadioShack store for assistance.

CLEANING THE TAPE-HANDLING PARTS

Dirt, dust, or particles of the tape's coating can accumulate on
the tape heads and other parts that the tape touches. This can
greatly reduce the performance of the cassette player. After ev-
ery 20 hours of tape player operation, follow these steps to
clean the tape-handling parts or use a RadioShack cassette
deck cleaning kit.

1. Remove the batteries and disconnect any other power
   source.

2. Open the cassette compartment door.

3. With the eraser end of a pencil, gently press down on the
   erase-protection sensor.

**Erase-Protection
Sensor**

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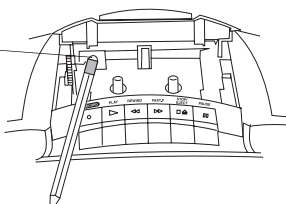
4. While holding down the erase-protection tab sensor, press **RECORD** to expose the tape-handling parts.

5. Use a cotton swab dipped in denatured alcohol or tape head cleaning solution to clean the tape guides, record/play head, erase head, pinch roller, and capstan.
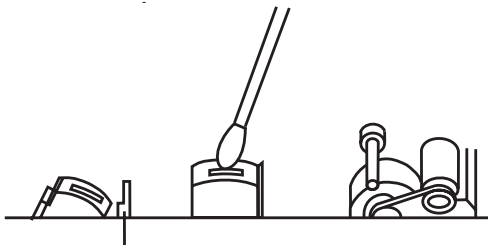
6. When you finish cleaning, press **STOP/EJECT** and close the cassette compartment door. Then reconnect power.

SPECIFICATIONS

RADIO

Frequency .... AM: 530–1710 kHz
FM: 88–108 MHz

CASSETTE DECK

Tape Speed ....$1^7/_8$ in/sec.
($4^3/_4$ cm/sec)

Tape System .... 4-Track Stereo

Recording System .... AC Bias

Erasing System .... Multi-Pole

CD PLAYER

Frequency Response .... ±4 dB @ 61 Hz–16 kHz

Signal-to-Noise .... 70 dB

Sampling Frequency .... 44.1 kHz

Oversampling .... 8 Times

Harmonic Distortion 2%

GENERAL

Power Supply ....120V AC, 60 Hz
or Eight C Batteries

Output Power .... 2W/Ch (10% THD)

Dimensions .... $7^1/_2 \times 15^5/_{16} \times 8^{13}/_{16}$ Inches (HWD)
(190 × 389 × 224 mm)

Weight (Without Batteries) ....102.3 oz
(2.9 kg)

Specifications are typical; individual units might vary. Specifications are subject to change and improvement without notice.
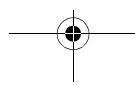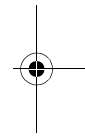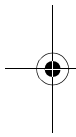
Limited Ninety-Day Warranty

This product is warranted by RadioShack against manufacturing defects in material and workmanship under normal use for ninety (90) days from the date of purchase from RadioShack company-owned stores and authorized RadioShack franchisees and dealers. EXCEPT AS PROVIDED HEREIN, RadioShack MAKES NO EXPRESS WARRANTIES AND ANY IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE DURATION OF THE WRITTEN LIMITED WARRANTIES CONTAINED HEREIN. EXCEPT AS PROVIDED HEREIN, RadioShack SHALL HAVE NO LIABILITY OR RESPONSIBILITY TO CUSTOMER OR ANY OTHER PERSON OR ENTITY WITH RESPECT TO ANY LIABILITY, LOSS OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY USE OR PERFORMANCE OF THE PRODUCT OR ARISING OUT OF ANY BREACH OF THIS WARRANTY, INCLUDING, BUT NOT LIMITED TO, ANY DAMAGES RESULTING FROM INCONVENIENCE, LOSS OF TIME, DATA, PROPERTY, REVENUE, OR PROFIT OR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, EVEN IF RadioShack HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Some states do not allow the limitations on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

In the event of a product defect during the warranty period, take the product and the RadioShack sales receipt as proof of purchase date to any RadioShack store. RadioShack will, at its option, unless otherwise provided by law: (a) correct the defect by product repair without charge for parts and labor; (b) replace the product with one of the same or similar design; or (c) refund the purchase price. All replaced parts and products, and products on which a refund is made, become the property of RadioShack. New or reconditioned parts and products may be used in the performance of warranty service. Repaired or replaced parts and products are warranted for the remainder of the original warranty period. You will be charged for repair or replacement of the product made after the expiration of the warranty period.

This warranty does not cover: (a) damage or failure caused by or attributable to acts of God, abuse, accident, misuse, improper or abnormal usage, failure to follow instructions, improper installation or maintenance, alteration, lightning or other incidence of excess voltage or current; (b) any repairs other than those provided by a RadioShack Authorized Service Facility; (c) consumables such as fuses or batteries; (d) cosmetic damage; (e) transportation, shipping or insurance costs; or (f) costs of product removal, installation, set-up service adjustment or reinstallation.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

RadioShack Customer Relations, 200 Taylor Street, 6th Floor,
Fort Worth, TX 76102

We Service What We Sell   *04/99*